



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/293,163	04/16/1999	E. MICHAEL KERR	5593	4521

7590

08/19/2002

KELLY L CUMMINGS
NALCO CHEMICAL COMPANY
PATENT & LICENSING DEPARTMENT
ONE NALCO CENTER
NAPERVILLE, IL 605631198

EXAMINER

REDDICK, MARIE L

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 08/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/293,163

Applicant(s)

KERR ET AL.

Examiner

Judy M. Reddick

Art Unit

1713

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. ***The following is a quotation of the second paragraph of 35 U.S.C. 112:***

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. ***Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.***

The recited "amu ranging from about 2,000 to about 100,000" per claim 1 and molecular weight ranging from about 2,000 to about 20,000" per claim 5 constitutes indefinite subject matter as per the type of molecular weight intended is not readily ascertainable, i.e., "weight average" or "number average", the two being substantially different. Consult Ex parte Simpson(61 USPQ2D 1009).

Claim Rejections - 35 USC § 102

3. ***The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:***

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published

Art Unit: 1713

under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. *Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Barham et al (U.S. 6,231,768).*

Barham et al disclose processes for modifying the viscosity of a slurry wherein said processes basically involve adding a viscosity modifier which includes naphthalene sulphonate polymers and derivatives thereof, polymers of 2-acrylamide-2-methylpropane sulfonic acid (AMPS), etc. to a slurry of water and mineral-containing solid materials which include mineral sands such as red mud, nickel, uranium, coal and iron ore, etc. Barham therefore anticipates the instantly claimed invention. See, e.g., the Abstract and cols. 4-6 of Barham.

Claim Rejections - 35 USC § 103

6. *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Art Unit: 1713

Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.***
- 2. Ascertaining the differences between the prior art and the claims at issue.***
- 3. Resolving the level of ordinary skill in the pertinent art.***
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.***

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horsley et al(U.S. 4,688,588) in combination with Barham et al(U.S. 6,231,768).

The disclosure of Horsley et al as well as the difference in the disclosure of Horsley et al and that of the claimed invention is as already discussed in the previous Office Action per paper no. 13, 11/20/02.

One having ordinary skill in the art would have found it obvious to swap the naphthalene sulphonate aminoplast polymer dispersants(viscosity modifiers) of Horsley et al for the AMPS polymers of Barham et al, based on their recognized

Art Unit: 1713

equivalency as disclosed per Barham et al at col. 4, lines 25+ and col. 6, lines 25+ and with a reasonable expectation of success.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Farrar et al(U.S. 4,509,987).

Farrar et al house examples which teach adding an AMPS-containing polymer to a slurry of sand and water. See col. 5, Runs (B)-(F). The Runs of Farrar et al therefore anticipate the instantly claimed invention.

Response to Arguments

12. Applicant's arguments filed 11/20/01 have been fully considered but they are not persuasive.

Relative to the 112, 2nd paragraph issue---“amu” translates to “atomic mass units” which is no different from “average molecular weight”, absent some evidence to the contrary. To this end, it is urged and maintained that “wt. avg.” and “no. avg” molecular weights are substantially different.

Art Unit: 1713

Relative to Horsley et al w/Barham et al---This is a new ground of rejection and has not been addressed by Counsel.

Conclusion

13. Note the attached FORM PTOL 892 for additional prior art cited as of being illustrative of the general state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (703)308-4346. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703)308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)892-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.

J. M. Reddick
**Judy M. Reddick
Primary Examiner
Art Unit 1713**

JMR *JMR*
August 9, 2002